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UNITED STATES DEPARTMENT OF AGRICULTURE
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BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
WASHINGTON 25, D. C.

In Cooperation with State, Federal and other Agencies

COTTON INSECT CONDITIONS FOR WEEK ENDING AUGUST 16, 1947

(Twelfth Cotton Insect Survey Report for 1947)

This may be the last report on cotton insect conditions for 1947. Additional reports will be issued if insect infestations of special importance develop.

The boll weevil has reached its peak in most areas and is now causing damage to green bolls. Much cotton can be saved by dusting with insecticides to protect the bolls until danger of boll injury by weevils is passed.

Cotton leafworms were found in San Patricio and Victoria Counties, making a total of seven counties reported infested in Texas. Cotton leafworms were found in Walton County, Florida, August 8.

The bollworm is causing serious damage in Arizona, New Mexico, Oklahoma, Texas, Louisiana, and Mississippi.

INSECTICIDES

No shortage of insecticides was reported.

BOLL WEEVIL

NORTH CAROLINA: Hot, dry weather aided in reducing boll weevil population in most areas but weevil infestations continue high. The average infestation in 121 fields in 19 counties was 77%. In 110 fields more than 50% of the squares were punctured; in 10 fields from 25 to 50%; and in only one field in Hertfort County was less than 25% of the squares punctured. James T. Conner, Jr., Extension Entomologist reported August 16: "Very few of the southern fields have any blooms. The weevils are in full migration. All of the Northern Coastal Plain fields are in full bloom with plenty of squares. Cotton that is still fruiting should continue to be dusted until the bolls are large enough to resist attack by weevils."

SOUTH CAROLINA: Cotton is opening rapidly in the older fields in the southern part of the State and picking is general in that area. Some cotton is opening in the upper Coastal Plains area with some picking being reported in Sumter County. Cotton in the upper Piedmont section is at the peak of blooming. The drought helped the weevil situation and some farmers are poisoning for weevil control. However, migratory weevils will take a heavy toll of young bolls unless the cotton is protected throughout August. The average infestation in 82 fields in 19 Piedmont counties was 49%. Weevils were found in all fields examined.

GEORGIA: Cotton is opening rapidly and some has been picked in the southern half of the state. The crop is well advanced in the northeastern counties, but is still setting bolls in the northwestern counties. Boll weevil migration is well established in the middle Piedmont Counties and a rapid increase in weevil population has occurred in Barrow, Clark, Jackson, Oconee, and Walton Counties. The average infestation in 29 fields in 15 northeastern counties was 27%. The highest infestation reported in this area was in one field in Baldwin County where 71% of the squares were punctured. The average infestation in 29 fields in 18 northwestern counties was 21%. In 7 of the fields less than 10% of the squares were punctured; in 18 fields the infestation ranged from 10 to 30%; in 3 fields from 30 to 50%; and in only one field in Meriwether County was more than 50% of the squares punctured

ALABAMA: W. A. Ruffin, Extension Entomologist, Auburn, wired on August 18: "Rain interrupted dusting schedule last week. Forty fields in central and western part of state examined during week. Infestation averaged 31% farmers are being advised to dust cotton one or more times to protect young bolls."

MISSISSIPPI: R. P. Colmer, Chief Inspector of the State Plant Board, reported on August 18 that no weevils were found in 33 of the 252 fields examined in 32 counties and in the 219 infested fields there was an average of 27% punctured squares as compared to 23% the previous week and 48% on this date a year ago. The average in all fields examined was 23% as compared to 17% the previous week.

E. W. Dunnam and S. L. Calhoun reported that weevils were found in 11 of the 13 Delta counties examined. No weevils were found in Coahoma and Tallahatchie Counties. Less than half of the fields examined in Bolivar, Quitman and Sunflower Counties were infested. All fields examined in Holmes, Issaquena, Warren, and Yazoo Counties were infested. The average infestation in infested fields was 34% as compared to 23% the previous week. Part of this increase was due to maturing of the crop. The average in all fields examined was 23% as compared to 13% the previous week. Even with the heavy infestations in some fields, less than half of the infested fields require poison. No weevils were found in 31% of the fields examined In 27% of the fields less than 10% of the squares were punctured; in10% of the fields from 10 to 25%; in 10% from 25 to 50%; and in 22% of the fields more than 50% of the squares were punctured.

No weevils were found in 31% of the fields as compared to 43% the previous week, indicating that weevil migration is in progress.

B. J. Young of the Delta and Pine Land Company, Scott, reported on August 14 that weevils were found in all of the 386 fields examined in Bolivar County. In 70 fields less than 10% of the squares were punctured; in 290 fields from 10 to 25%; and in 26 fields from 25 to 50% of the squares were punctured. He stated: "Weevils are prevalent everywhere and it is evident that the general migration has started. Lice are showing up where three applications of regular calcium arsenate have been used. Weather conditions for evening poisoning have been unfavorable during the past few days."

F. F. Bibby reported weevil infestations in 10 fields in Itawamba County in the northeastern part of the State, ranging from 3 to 54%, with an average of 36% punctured squares.

LOUISIANA: Boll weevil migration is now general in the northeastern section of the State. The adult populations appear to be smaller in numbers than in average years. The average infestation in 73 fields in 4 parishes in the northern section of the State was 16%. In 3% of the fields no weevils were found; in 33% of the fields less than 10% of the squares were punctured; in 53% of the fields from 10 to 25%; in 7% of the fields from 25 to 50%; and in 4% of the fields more than 50% of the squares were punctured.

ARKANSAS: Local showers occurred over the State accompanied by a few days of mild temperature in the southern areas. Weevils were found in all of the 47 fields examined in 6 southeastern counties. In 26% of the fields less than 10% of the squares were punctured; in 32% of the fields from 10 to 25%; in 30% of the fields from 25 to 50%; and in 12% of the fields more than 50% of the squares were punctured.

TEXAS: The scarcity of squares made it impossible to obtain an accurate boll weevil infestation count, and counts were discontinued in many areas. Weevil infestations continued low, except in isolated fields, mostly in late-fruiting cotton in river or creek bottom soil. The average square infestation in 40 fields in 6 northwest counties was 2%. No weevils were found in 31 fields; in 7 fields less than 10% of the squares were punctured; and in only 2 fields in Fisher County were more than 10% of the squares punctured.

OKLAHOMA: C. F. Stiles, Extension Entomologist, reported August 16: "Old cotton has passed the height of fruiting and is deteriorating rapidly in most areas in eastern Oklahoma. Some fields are opening prematurely and there will be some harvesting soon. Young cotton continues to withstand the drought and is still fruiting. The boll weevil infestation remains high in eastern Oklahoma. Squares are becoming scarce in some fields." The average square infestation in 147 fields in 19 counties was 22% as compared to 31% the previous week. No weevils were found in 18 fields in Washita, Haskell, Kiowa, Tillman, Cotton, and Comanche Counties. In 36 fields less than 10% of the squares were punctured; in 46 fields from 10 to 25%; in 28 fields from 25 to 50%; and in 19 fields more than 50% of the squares were punctured.

BOLLWORM

NORTH CAROLINA: Bollworm infestations have been observed but little damage has been reported.

MISSISSIPPI: R. P. Colmer, Chief Inspector of the State Plant Board, reported on August 16: "Bollworms are again reported from several sections of the state." B. J. Young of the Delta and Pine Land Company, Scott, reported on August 14: "Two serious infestations of large bollworms have been reported near Cleveland. An infestation of small bollworms were discovered here today. During the week we received approximately a dozen telephone calls concerning bollworm trouble".

LOUISIANA: Bollworms were reported in several cotton fields in Madison Parish in sufficient numbers to require control measures.

TEXAS: Bollworm damage continues light and scattered over most areas of the State, but serious damage was reported in Martin, Dawson, and Howard Counties. Cotton growers are using 10% DDT for bollworm control.

OKLAHOMA: C. F. Stiles, Extension Entomologist, wrote on August 16: "The bollworm is now the most serious cotton insect pest in Oklahoma. Practically all fields are infested. The infestation ranges from light to more than 50% of the forms being damaged. On some stalks all forms have been destroyed. Millers, eggs, small and medium and large size worms have been found in a large percentage of the fields."

COTTON LEAFWORM

Cotton leafworms were found in San Patricio and Victoria Counties, making seven counties in Texas from which the leafworm has been reported this season. The build-up in populations has been slow but an increase was noted the past week in Nueces County where 25 fields examined and 11 were recorded infested as follows: 6 light, 4 ragged, and 1 stripped.

Cotton leafworms were reported in Walton County, Florida, August 8.

COTTON APHID

LOUISIANA: Serious infestations of aphids have developed in cotton fields that have been poisoned for weevil control in the north central section of the State.

ARKANSAS: Heavy aphid infestations have been reported in the southeastern section of the State.

GEORGIA: Aphid damage has been reported in Carroll and Harris Counties.

MISCELLANEOUS INSECTS

Garden Webworm (Loxostege similalis): Joe H. Scott, Jr., County Extension Agent, Kennett, Dunklin County, Missouri, reported on August 12 that the hot, dry weather had retarded the garden webworm and other insects on cotton.

The garden webworm is reported as causing serious damage in cotton fields where the weeds have not been chopped out, over wide areas in Dawson, Howard and Martin Counties, Texas. Ten percent DDT, calcium arsenate, and lead arsenate are being used for control of this insect.

Red Spider Mite: Joe H. Scott, Jr., County Extension Agent, Kennett, Dunklin County, Missouri, reported on August 12: "The red spider is scattered over the county, but so far little damage has been found. Farmers are prepared to dust with sulfur in case it begins to spread."

James T. Conner, Jr., Extension Entomologist, Raleigh, North Carolina, reported August 16: "Red spiders have been observed generally but little damage has been noted".

Fall Armyworm or Southern Grassworm (Laphygma frugiperda) continues to cause serious damage to corn, grain crops, soybeans, pastures, and cotton in Mississippi and Louisiana. No reports were received of damage in Alabama, Georgia, and South Carolina where damage was reported the previous week.

F. F. Bibby reported the rapid plant bug and Neurocolpus nubilis as causing minor damage to large squares in many cotton fields in Itawamba County, Mississippi.

Grape Colaspis, Colaspie flavida (Say): The Grape Colaspis is widely distributed and every year some reports are received in regard to these beetles injuring cotton especially by feeding on the leaflike bracts that are around the squares and bolls. On July 31, 1947, W. W. Stanley, Associate Entomologist, Agricultural Experiment Station, Knoxville, Tennessee wrote that these beetles had been reported as injuring cotton near Winchester in Franklin County and near Jackson in Madison County, Tennessee. The specimens submitted were determined by H. S. Barber as Colaspis flavida (Say). L. W. Noble submitted beetles collected from both cotton and alfalfa in the El Paso Valley of Texas, July 21-24, 1947 that were determined by H. S. Barber as Colaspis sp. related to, but distinct from flavida (Say).

INSECTS ON IRRIGATED COTTON OF THE SOUTHWEST

ARIZONA: In general, plant bug and stink bug populations on cotton were slightly lower than the previous week in the Salt River Valley. In a few fields the populations showed a slight increase. A few cotton leaf perforators and bollworms were noted in many of the fields. Aphids were noted in one field of stub cotton in the Buckeye area in sufficient numbers to require control.

The injurious Hemiptera populations continue low in the Santa Cruz Valley, but Lygus and stink bugs are increasing slightly in the Marana area. A second application of DDT-sulfur dust was applied to about 3,500 acres in the Continental area for bollworm control. A second application will be made on approximately 7,000 acres in the Marana district as soon as weather permits.

Showers aided in reducing aphid populations in Pinal County. The injurious Hemiptera populations remained unchanged. Some dusting is being continued, especially for stink bug control.

NEW MEXICO: A general bollworm infestation was reported in Eddy and Chaves Counties and the heavily infested fields are being dusted. Heavy populations of the stink bug known as the Conchuela have developed in cotton fields near seed alfalfa fields in Eddy County. A 10% DDT-sulfur dust is being applied for their control. *Lygus* and cotton fleahopper populations are moving into cotton fields that were poisoned earlier in the season.

TEXAS: Dusting was continued on a large scale in the El Paso Valley for hemipterous insect control. Sweepings made in 10 cotton fields showed a decrease in the number of mirids, while stink bugs increased slightly. The average number of injurious insects per 100 net strokes was 20, as compared to 32 the previous week.

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